



System Brochure

## ADMET's most versatile Universal Testing Systems covering the widest range of applications and load capacities from 0.22 to 300 kN.

eXpert 2600 series dual column testers tackle the toughest tests with their superior axial alignment, stiffness, and crosshead guidance. A simple design allows for lower cost, faster delivery, and years of maintenance free operation. All eXpert systems are capable of performing compression, tension, and flexure tests.

- **eXpert 2600 Dual Column Table Top Universal Testing Machines** are offered in force ranges from 0.22kN to 50kN. These bench top models provide the flexibility to test adhesives, biomaterials, composites, elastomers, metals, films, packaging, plastics, textiles, wires, webbing and other materials with confidence.
- eXpert 2600 Dual Column Floor Standing Universal Testing Machines range in capacities from 50kN to 300kN. They feature wider column spacings to accommodate large specimens, larger grips and fixtures, special test fixtures and full-size parts. The floor standing testers are commonly used for testing metals, composites, aerospace and automotive structures, fasteners, mechanical components, construction materials and webbing.



**Customizable** - Backed by superior engineering and a willingness to tailor a system to your testing needs.



ADMET offers both contacting and non-contacting extensioneters for accurate strain measurement no matter the material or amount of elongation. A wide range of manual, pneumatic and hydraulic grips and fixtures are available for fast and repeatable loading of test samples. Each machine can be equipped with either a pushbutton standalone controller



or MTESTQuattro<sup>®</sup>, our most advanced pc-based controller with software. Both controllers are capable of performing tests according to ASTM or ISO test standards and feature 1kHz data log rates with faster servo update rates which ensure precise control test to test.

**Trusted** - Expertly designed, engineered and supported for life.

In addition, ADMET is always willing to modify eXpert 2600 testers with supplementary actuators, specialized fixtures, larger grips and wider column spacings to accommodate large components, longer specimens or oversized temperature chambers.

eXpert 2654 100kN Extended Height

eXpert 2653 50kN Wide



### System Specifications

|                                   |           | 2610        | 2611        | 2612        | 2613         | 2614          | 2653         | 2654          | 2655          | 2656          | 2657          | 2658          | 2659           |
|-----------------------------------|-----------|-------------|-------------|-------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Model                             |           | Table       | Table       | Table       | Table        | Table         |              |               |               |               |               |               |                |
|                                   |           | Тор         | Тор         | Тор         | Тор          | Тор           | Floor        | Floor         | Floor         | Floor         | Floor         | Floor         | Floor          |
| Load Capacity                     | lbf       | 1,125       | 2,250       | 5,620       | 11,250       | 22,500        | 11,250       | 22,500        | 33,750        | 56,250        | 67,500        | 90,000        | 137,000        |
|                                   | kN        | 5           | 10          | 25          | 50           | 100           | 50           | 100           | 150           | 250           | 300           | 400           | 600            |
|                                   | kgf       | 510         | 1,020       | 2,550       | 5,100        | 10,200        | 5,100        | 10,200        | 15,300        | 25,500        | 30,600        | 40,900        | 62,200         |
| Maximum                           | in/min    | 40          | 40          | 20          | 20           | 20            | 20           | 20            | 20            | 20            | 20            | 20            | 20             |
| Speed                             | mm/min    | 1,016       | 1,016       | 508         | 508          | 508           | 508          | 508           | 508           | 508           | 508           | 508           | 508            |
| Minimum                           | in/min    | 0.0001      | 0.0001      | 0.000002    | 0.000002     | 0.000002      | 0.000002     | 0.000002      | 0.000002      | 0.000002      | 0.000002      | 0.000002      | 0.000002       |
| Speed                             | mm/min    | 0.0025      | 0.0025      | 0.0001      | 0.0001       | 0.0001        | 0.0001       | 0.0001        | 0.0001        | 0.0001        | 0.0001        | 0.0001        | 0.0001         |
| Maximum<br>Force<br>at Full Speed | lbf<br>kN | 1,125<br>5  | 2,250<br>10 | 5,625<br>25 | 11,250<br>50 | 22,500<br>100 | 11,250<br>50 | 22,500<br>100 | 33,750<br>150 | 56,250<br>250 | 67,500<br>300 | 90,000<br>400 | 137,000<br>600 |
| Total Cross-<br>head<br>Travel'   | in<br>mm  | 48<br>1,220 | 48<br>1,220 | 46<br>1,170 | 46<br>1,170  | 46<br>1,170   | 43<br>1,090  | 42<br>1,070   | 42<br>1,070   | 45<br>1,140   | 50<br>1,270   | 50<br>1,270   | 47<br>1,194    |
| Total Vertical                    | in        | 54          | 54          | 52          | 52           | 52            | 49           | 48            | 48            | 51.5          | 60            | 59            | 60             |
| Test Space <sup>2</sup>           | mm        | 1,370       | 1,370       | 1,320       | 1,320        | 1,320         | 1,240        | 1,220         | 1,220         | 1,310         | 1,520         | 1,500         | 1,520          |
| Space Between                     | in        | 16.8        | 16.8        | 16.8        | 16.8         | 16.8          | 22           | 22            | 22            | 22.63         | 22.63         | 22.63         | 22.63          |
| Columns                           | mm        | 427         | 427         | 427         | 427          | 427           | 559          | 559           | 559           | 575           | 575           | 575           | 575            |
| Height                            | in        | 71          | 71          | 71          | 71           | 71            | 85           | 85            | 85            | 89            | 100           | 100           | 110            |
|                                   | mm        | 1,800       | 1,800       | 1,800       | 1,800        | 1,800         | 2,160        | 2,160         | 2,160         | 2,260         | 2,540         | 2,540         | 2,794          |
| Width                             | in        | 34          | 34          | 34          | 34           | 34            | 41           | 41            | 41            | 43            | 49            | 50            | 55             |
| (Frame Only)                      | mm        | 860         | 860         | 860         | 860          | 860           | 1,040        | 1,040         | 1,040         | 1,090         | 1,240         | 1,270         | 1,397          |
| Depth                             | in        | 20.5        | 20.5        | 20.5        | 20.5         | 20.5          | 23           | 23            | 23            | 25            | 37            | 37            | 38             |
|                                   | mm        | 520         | 520         | 520         | 520          | 520           | 580          | 580           | 580           | 640           | 940           | 940           | 965            |
| Weight                            | lb        | 330         | 330         | 330         | 350          | 425           | 1,600        | 1,600         | 2,000         | 2,500         | 3,700         | 3,900         | 4,400          |
|                                   | kg        | 150         | 150         | 150         | 160          | 195           | 730          | 730           | 910           | 1,150         | 1,680         | 1,770         | 1,957          |

#### Notes:

- 1. Total crosshead travel is calculated without load cells, grips, and fixtures. Longer strokes can be accommodated by ordering an extended column frame.
- 2. Total Vertical Test Space is the distance from the top surface of the base platen to the bottom surface of the moving crosshead, excluding load cell, grips and fixtures. Larger openings can be accommodated by ordering an extended column frame.

Load Measurement Accuracy: +/- 0.5% of reading down to 1/500 of load cell capacity. Meets or exceeds ASTM E4, BSENIS 7500-1: 2004, DIN 51221 and JIS B7721 standards. ADMET self-identifying load cells are offered with all systems.

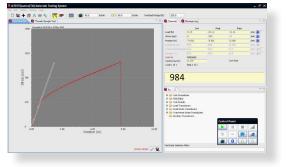
Strain Measurement Accuracy: +/- 0.5% of reading down to 1/50 of full scale with ASTM E83 class B extensometers. Meets or exceeds ASTM E83 and BSENISO9513: 2002 standards.

Crosshead Position Accuracy: The greater of +/- 0.01mm or +/- 0.05% of displacement.

### Test with Certainty.

#### Controls and Software

All ADMET Testing Machines can be equipped with one of two closed loop servo controllers. MTESTQuattro<sup>®</sup>, our most advanced testing system, is a PC-based unit that offers a wide range of flexibility in control, data acquisition, analysis, and reporting. The eP2 Digital Controller, a standalone touch panel unit, offers a balance between performance and simplicity. Both controllers feature 8 kHz servo update periods and programmable log rates to 1 kHz.



MTESTQuattro® running on Windows

| Controller      | MTESTQuattro®  | eP2 Digital Controller  |  |  |  |  |
|-----------------|--|---|--|--|--|--|
| Interface       | PC Software  | Touch Panel   |  |  |  |  |
| Analysis        | Extensive calculations library<br>w/ built-in ASTM/ISO<br>specification analysis.                          | Standard calculation package<br>for basic testing requirements<br>and QC testing.   |  |  |  |  |
| Test Procedures | Use built-in or create an<br>unlimited number of simple to<br>complex procedures.                          | Save up to six test procedures in eP2.  |  |  |  |  |
| Reporting       | Store and organize all data.<br>View and print user<br>customizable test reports with<br>chart and tables. | Post test, view current results<br>on eP2 screen and send data<br>to PC for reporting using<br>optional GaugeSafe software. |  |  |  |  |

MTESTQuattro® (left)

eP2 (right)

**Accessories** - Grips, environmental chambers, extensometers, baths, cutting tools and more.

Systems can be equipped with a variety of grips, fixtures, environmental chambers and temperature controlled baths to accommodate a wide range of testing requirements. For more accurate strain measurements, extensometers or deflectometers can be added to any ADMET testing System.



**Training and Service** - ADMET testing systems are easy to learn and use. We provide both introductory on-line and onsite training. Our manuals, tutorials, and trouble shooting guides are updated regularly. We provide free phone and email product support through the life of the system. ADMET's on-site service and calibration team includes over 100 individuals in over 40 locations in the USA.

**Calibration** - Customers can setup calibration contracts with ADMET or a private party. All services are A2LA accredited and meet ISO/IEC Guide 17025 and ANSI/NCSL Z540.



51 Morgan Drive Norwood, MA 02062 Tel: (781) 769-0850 Fax: (781) 769-0884 Sales@ADMET.com www.ADMET.com www.ADMET.com

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eXpert 2654 100kN with long-travel extensometer (left) and eXpert 2610 5kN Table Top with Heating/Cooling Chamber (right)

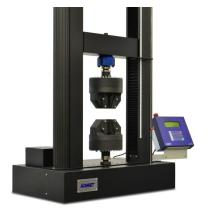
Service and Calibration















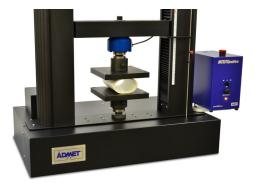














51 Morgan Drive Norwood, MA 02062 Tel: (781) 769-0850 Fax: (781) 769-0884 Sales@ADMET.com www.ADMET.com

(800) 667-3220 www.ADMET.com

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